

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012635**Date Inspected:** 11-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Jesse Cayabayab, Tom Pasqualone, CWI Present			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	SAS OBG 1E/2E-C		

Summary of Items Observed:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 1E/2E-C the following observations were made:

- 1.) 1E/2E-C-1 misalignment of two members prior to welding
- 2.) Conversation and comments of ABF Representative John Callaghan

1E/2E-C-2

The QA Inspector randomly observed the ABF welders Rory Hogan and Jeremy Doleman setting up the flux cored arc welding (FCAW) machines at the above identified weld joint. The QA Inspector randomly observed an area of the weld joint where the longitudinal weld intersected with the transverse weld splice identified above. The QA Inspector performed dimensional measurements of the off set of the two members, it was observed by the QA Inspector the intersected area of the transverse weld splice 1E/2E-C and the longitudinal weld had an off set of 6mm. The QA Inspector continued to perform the dimensional measurements and observed the weld joint was not in compliance with the dimensional tolerances of AWS D1.5-02. The QA Inspector noted the off set of the two members was 3.5mm-4mm, the QA Inspector noted the maximum allowable off set for the weld joint is 2mm. The QA Inspector noted the area of the weld joint which was not in compliance with the contract requirements was approximately 2100mm in length. The QA Inspector noted the non complaint area was 2100mm long beginning at the top "T" stiffener and extending downward 2100mm. The QA Inspector informed the Smith Emery (SE) Quality Control (QC) Inspector Bernard Docena of the issue described above (see summary of conversations). The QA Inspector noted the QC Inspector left the area of welding to inform the ABF representative John Callaghan.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

After the below noted conversation the QA Inspector left the area to inform the QA Task Leader Bill Levell of the issue of the off set and the conversation with John Callahan.

The QA Inspector randomly observed Mr. Callahan instruct the ABF welders Rory Hogan and Jeremy Doleman re-install the splice plate in the area where the off set had occurred. The QA Inspector observed the ABF welder Rick Clayborn perform additional fit up and install additional pins to the fit gear to correct the off set members. After the additional fit was performed, the QA Inspector observed the off set had been corrected in all areas of the original 2100mm except for the area at the intersection of the longitudinal weld. The QA Inspector performed additional dimensional verifications after the QC Inspector Jesse Cayabayab had informed the QA Inspector the off set had been nearly corrected. The QA Inspector noted the off set in the area of the intersection of the longitudinal weld still remained at 5mm at the end of the QA Inspectors shift. The QA Inspector noted the ABF welders had stopped the FCAW fill passes short of the area where the off set was previously determined to be unacceptable. The QA Inspector noted the ABF welders had three to four passes of fill in the weld joint beginning at the area where previously welded extending approximately 2.5 meters upward.



Summary of Conversations:

The QA Inspector informed the QC Inspector Bernard Docena of the off set issue described above. Mr. Docena informed the QA Inspector he did not accept the fit up, rather it was accepted previously by the SE QC Inspector Jesse Cayabayab.

The ABF Representative John Callahan arrived at the 1E/2E-C weld joint at the request of the QC Inspector Bernard Docena. Mr. Callaghan asked the QA Inspector what the problem was. The QA Inspector informed Mr. Callaghan the fit up of the weld joint was not within the tolerances of AWS D1.5-02. The QA Inspector went on to inform Mr. Callaghan the off set between the two members was 6mm in the most extreme area and 3.5mm-4mm average spanning over the remainder of the 2100mm identified above. Mr. Callaghan informed the QA Inspector the fit up of the weld joint was complete and no other fit tasks would be performed. Mr. Callaghan went on to inform the QA Inspector ABF will go forward in welding the joint together. The QA Inspector informed Mr. Callaghan again the weld joint was not in compliance with AWS-D1.5-02 and if welded together it would be done so at the contractors own risk.

Mr. Callaghan began to elaborate on the fact that the weld joint in question had been previously accepted by QC and QA. The QA Inspector informed Mr. Callaghan, regardless of previous inspections the weld joint 1E/2E-C1 was ready to weld and was not in compliance with the AWS D1.5-02 bridge code. Mr. Callaghan went on to inform the QA Inspector the weld joint was accepted several days ago and it should not matter what the condition

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

of the weld joint was today. The QA noted Mr. Callaghan was implying the quality of joint was not a concern to him, due to the fact the weld joint was accepted previously. The QA Inspector informed Mr. Callaghan, Caltrans QA would not argue about the fact of the previous condition of the weld joint. The QA Inspector informed Mr. Callaghan conditions may change and currently the weld joint was not acceptable, and if welded, ABF would be proceeding at their own risk.

Later in the shift, John Callaghan approached the QA Inspector and informed him the ABF welder Rick Clayborn will perform additional fit up tasks to ensure the weld joint was in compliance with AWS D1.5-02 bridge welding code. Mr. Callaghan informed the QA Inspector he became aggravated the weld joint was being inspected twice. The QA Inspector asked the Mr. Callaghan if he wanted to go on record stating what was previously said about weld joints current condition. Mr. Callaghan informed the QA Inspector he did not, and he was speaking previously in aggravation.

The SE QC Inspector Jesse Cayabayab later informed the QA Inspector he observed pins associated with the fit up gear, appeared to have been removed. The QC Inspector went on to explain the joint was likely put out of tolerance due to the removal of the pins associated with the fit up gear. The QC Inspector informed the QA Inspector the off set had been corrected in all of the areas except for the areas next to the intersection of the longitudinal weld. The QC Inspector informed the QA Inspector the off set could not be corrected any more than the current condition of the joint.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
